

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD**  
**LOS ANGELES REGION**

101 CENTRE PLAZA DRIVE  
MONTEREY PARK, CA 91754-2156  
(213) 266-7500  
FAX: (213) 266-7600

005002-005191



July 30, 1996

Ms. Susan Ritschel  
Lincoln Property Company  
P. O. Box 19693  
Irvine, CA 92713-9693

**UNDERGROUND STORAGE TANK CASE CLOSURE**  
**LINCOLN DISTRIBUTION CENTER**  
**12500 EAST SLAUSON AVENUE, SANTA FE SPRINGS (ID #906700089).**

Dear Ms. Ritschel:

This letter confirms the completion of the site investigation and remedial action for the underground storage tank(s) formerly located at the above-described location.

Based on the available information and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground storage tank release is required.

This notice is issued pursuant to a regulation contained in Title 23, California Code of Regulations, Division 3, Chapter 16, Section 2721(e).

If you have groundwater monitoring wells or vapor extraction wells at the subject property, you must comply with the following:

1. All wells must be located and properly abandoned.
2. Well abandonment permits must be obtained from the Los Angeles County Department of Health Services, and all other necessary permits must be obtained from the appropriate agencies prior to the start of work.
3. You must submit a report on the abandonment of the wells to this office by August 30, 1996. This report must include at a minimum, a site map, a description of the well abandonment process, and copies of all signed permits.

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Ms. Susan Ritschel  
Page Two

Please contact our office if you have any questions regarding this matter.

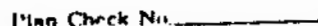
Sincerely,

ROBERT P. GHIRELLI, D. Env.  
Executive Officer



DAVE DEANER  
Acting Assistant Executive Officer  
Underground Tanks

cc: Mr. Toru Okamoto, State Water Resources Control Board, Underground Storage Tank Cleanup Fund  
Mr. Allan Patton, State Water Resources Control Board, Underground Storage Tank Program  
Mr. Alfredo Cardenas, Water Replenishment District of Southern California  
Mr. Al Bragg, Los Angeles County Department of Health Services, Water Well Permits  
Mr. Carl Sjoberg, Los Angeles County Department of Public Works,  
Environmental Programs Division  
Mr. Kenneth H. Lister, SCS Engineers



# PLAN CORRECTION SHEET

## Santa Fe Springs

LOCALITY

**OWNER**

MAIL ADDRESS

CITY

TEL. NO.

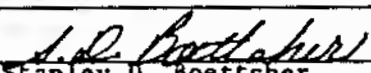
714/956-8350

ARCHITECT OR ENGINEER

TEL. NO.

Your application for a permit, together with plans and specifications, has been examined and you are advised that the issuance of a permit is withheld for the reasons hereinafter set forth.

The approval of plans and specifications does not permit the violation of any section of the Building Code, or other County Ordinance or State Law.

USE OF STRUCTURE		TYPE	GROUP	STY.	USE ZONE
VALUATION		AREA SQ.FT.		VALUATION PER SQ.FT.	Z.E.C.NO.
\$				\$	P.P.NO.
Longitudinal bracing is required on all three systems per N.F.P.A. Standard #13, 3-5.2.5.2.					
System capacity(ies) exceed 750 gallons. Please document that exception to 5-2.3.1 is to be met or quick-opening device is provided in accordance with 5-2.4.					
Please indicate how air pressure is supplied to existing risers.					
ROBERT C. WILSON, FIRE CHIEF					
 Stanley D. Boettcher Fire Marshal 10/23/89					
SDB:DJ:cd					
RETURN THIS SHEET WITH ALL ORIGINAL AND REVISED PLANS AND SPECIFICATIONS WHEN CORRECTIONS HAVE BEEN MADE					

RETURN THIS SHEET WITH ALL ORIGINAL AND REVISED PLANS AND SPECIFICATIONS WHEN CORRECTIONS HAVE BEEN MADE

Checked by.....  
Date.....

Rechecked  
and Approved..... Date

Sheet No. .... of .... Sheets

CORRECTIONS AS INDICATED WILL BE COMPLIED WITH.

257C - 7/74

(Sign Here).....  
(Signature of Owner or Applicant)

INDICATE IN THIS SPACE ON WHAT SHEET OR PAGE OF PLANS CORRECTIONS HAVE BEEN MADE

\* BARNARD ENGINEERING, INCORPORATED \*

2200 Via Burton, Anaheim, California 92803

(714) 956-8350

\* HYDRAULIC DESIGN INFORMATION SHEET \*

Name LINCOLN DISTRIBUTION CENTER Date 09-20-1989  
Location 12500 EAST SLAUSON AVE., SANTA FE SPRINGS, CA. System No. 1  
Building B Drawing No. 1 OF 2  
Contractor BARNARD ENGINEERING, INCORPORATED Contract No. J-1232  
Construction: \* COMBUSTIBLE NON-COMBUSTIBLE Ceiling Ht. 22 ft  
Occupancy COLD STORAGE

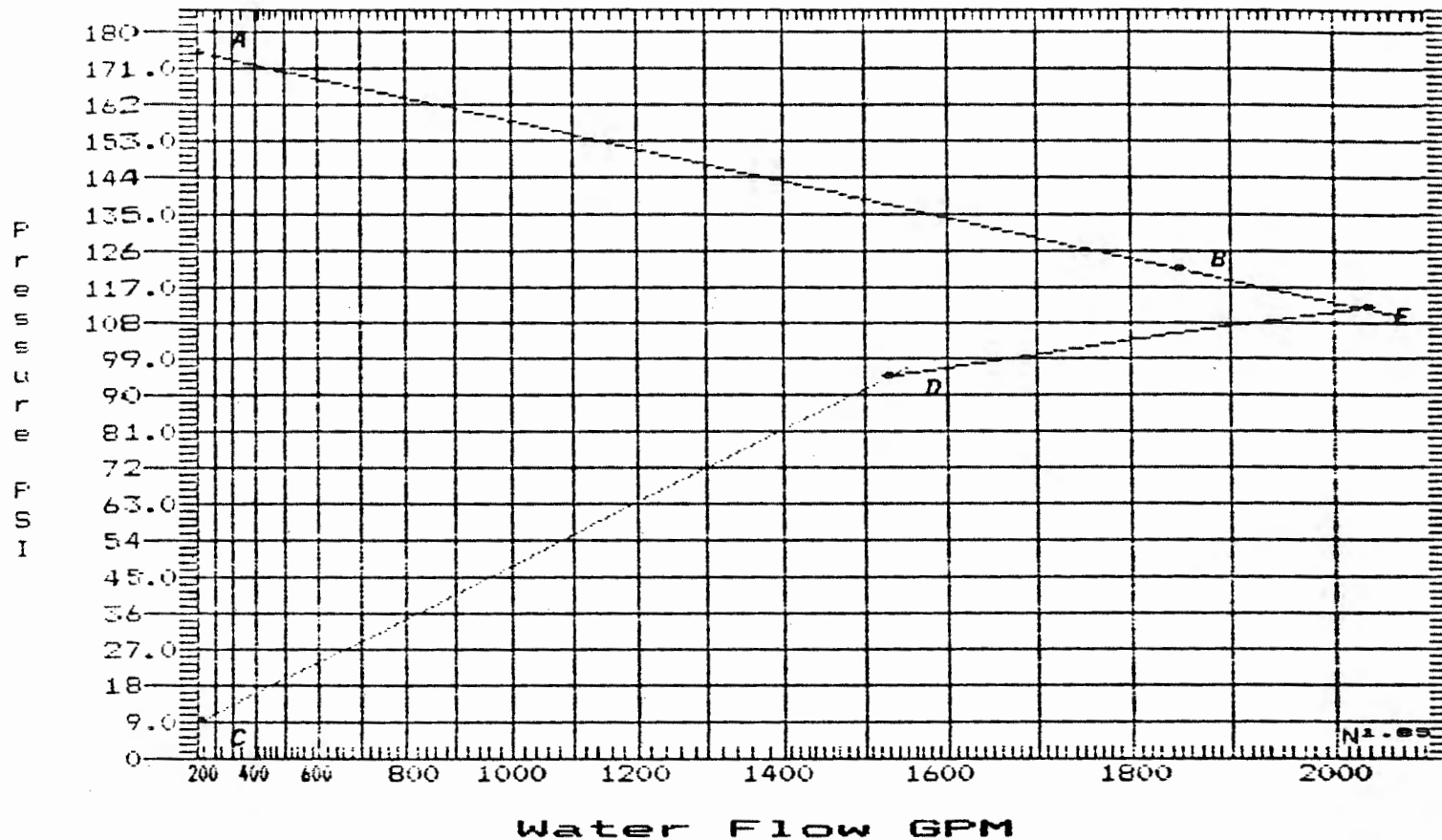
S :  
Y : NFPA 13: Lt.Haz. \*\* Ord.Haz. Gr. 1 2 5 \*\* Ex.Haz. 1 2  
S : NFPA 13D NFPA 231 NFPA 231C Figure        Curve         
T : \*\* Other (Specific ruling) .33/3900  
E : Authority having Jurisdiction SANTA FE SPRINGS FIRE DEPT.  
M :  
: Area of Sprinkler operation 3900 : \*\* SYSTEM TYPE \*\*  
D : Density .33 : Wet \* Dry Deluge Pre-Action  
E : Area per sprinkler 100 :  
S : Hose allowance GPM: inside 100 : \*\* SPRINKLER or NOZZLE \*\*  
I : Hose allowance GPM: outside 400 : Make CENTRAL Model A  
G : Rack sprinklers allowance        : Orifice Size 17/32" K-Factor 8.1  
N : : Temperature rating 286 deg.

CALCULATION : GPM required 1529.1 PSI required 94.8 at base of A.S. Riser  
SUMMARY : GPM required 2029.1 PSI required 112.0 at point of supply.  
: C-Factor used: Overhead 100 Underground 150/140

W : \*\*\*\* WATER FLOW TEST \*\*\*\* : \*\*\*\* PUMP DATA \*\*\*\* : \*\* TANK and RESERVOIR \*\*  
A :  
T : Test Date 1989 : RATED CAPACITY 3000 : Capacity 200000  
E : Static PSI 175 : at PSI 125 : Elevation 0  
R : Residual PSI 122 : Elevation 0 :  
: GPM Flowing 1850 : \*\* WELL \*\*  
S : Elevation Grade : PROOF FLOW N.A. GPM  
U :  
P : Location PUMP OUTLET  
F :  
L : Source of information PUMP CURVE  
Y :

C :  
D : Commodity        : Class        : Location         
M : Storage Height        : Area        : Aisle width         
M : Storage Method: Solid piled        % Palletized        % Rack        %  
D :  
D : :  
I : : Single row Conventional pallet Automatic storage Encapsulated  
T : : Double row Slave pallet Solid shelving Non-  
Y : Multiple row Open Encapsulated  
: A :  
S : C :  
T : K : \*\* FLUE SPACING IN INCHES \*\* : CLEARANCE FROM TOP OF STORAGE TO CEILING  
D : : Longitudinal        Transverse        :        ft.        in.  
R : :  
A : :  
G : : Horizontal barriers provided         
E : :

## LINCOLN DISTRIBUTION CENTER



## LETTER

## DESCRIPTION

- A = Static Pressure of 175.0 p.s.i.  
B = Residual Pressure of 122.0 p.s.i. at 1850.0 G.P.M.  
C = Elevation Pressure 9.5 p.s.i. Elev of 22.0 ft.  
D = Base of Riser Demand 94.8 p.s.i. at 1529.1 G.P.M.  
E = Point of Conn Demand 112.0 p.s.i. at 2029.1 G.P.M.

The City Supply provides 112.1 p.s.i. at 2029.1 G.P.M.  
which leaves a buffer of 0.1 p.s.i. at system demand.

## Sprinkler System Analysis

## Small Sample Output

## Comments

Supply pressure is 35.2 PSI.<sup>1</sup>

NODE NO.	ELEVATION FEET	SPRK COEF	PRESSURE PSI	DISCHARGE GPM
1 <sup>2</sup>	15.0 <sup>3</sup>	3.85 <sup>4</sup>	21.9 <sup>5</sup>	18.0 <sup>6</sup>
2	15.0		22.9	
3	0.0		30.6	5.0 Hydrant Flow <sup>7</sup>
4	0.0		35.2	Supply Point <sup>8</sup>

PIPE NO.	FLOW GPM	K-FACTOR FITTING TYPE DIAMETER	LENGTH FTG TOTAL	FRICTION LOSS PSI/FT	PRESSURE PSI
1 <sup>9</sup>	Q= 18.0 <sup>6</sup>	K= 3.85 <sup>4</sup>	10.0 <sup>10</sup>		Pt 21.9 <sup>5</sup> Pt 21.9
1 <sup>9</sup>	Q= 18.0 <sup>6</sup> F=2 <sup>11</sup>		0.0 <sup>12</sup> C= 120 <sup>17</sup>	Pe 0.0 <sup>19</sup> Pv -0.3	
	Vf/s= 6.7 <sup>13</sup> B= 1.049 <sup>12</sup>		10.0 <sup>10</sup> 0.1677 <sup>18</sup>	Pf 1.1 <sup>20</sup> Pn 21.6	
2 <sup>9</sup>	Q= 0.0 <sup>6</sup> K= 0.00 <sup>4</sup>		25.0 <sup>14</sup>		Pt 22.9 <sup>5</sup> Pt 22.9
2 <sup>9</sup>	Q= 18.0 <sup>6</sup> F=62 <sup>11</sup>		14.5 <sup>15</sup> C= 120 <sup>17</sup>	Fe 6.5 <sup>19</sup> Pv -0.1	
	Vf/s= 3.9 <sup>13</sup> B= 1.380 <sup>12</sup>		39.5 <sup>14</sup> 0.0283 <sup>18</sup>	Pf 1.1 <sup>20</sup> Pn 22.8	
3 <sup>9</sup>	Q= 5.0 AGE HYD FLOW <sup>7</sup>		100.0 <sup>16</sup>		Pt 30.6 <sup>5</sup> Pt 30.6
3 <sup>9</sup>	Q= 23.0 <sup>6</sup> F=5 <sup>11</sup>		13.7 <sup>15</sup> C= 150 <sup>17</sup>	Pe 0.0 <sup>19</sup> Pv -0.2	
	Vf/s= 5.6 <sup>13</sup> B= 1.261 <sup>12</sup>		113.7 <sup>16</sup> 0.0468 <sup>18</sup>	Pf 4.6 <sup>20</sup> Pn 30.4	
4 <sup>9</sup>	<<<<<<< Supply point >>>>>>>				Pt 35.2 <sup>21</sup>

- { 1. Normally, calculations will be shown for minimum }  
 { discharge characteristics. However, the calcs }  
 { may be presented with an actual supply curve. }  
 { When this is the case, the report also displays }  
 { the residual pressures and supply volume. }  
 { 2. Nodes refer to hydraulic reference points. }  
 { 3. Elevation measured in feet above datum. }  
 { 4. K-Factor of open sprinkler or nozzles. }  
 { 5. Pressure calculated at reference point. }  
 { 6. Discharge (q) = K x (P)<sup>1/2</sup> }  
 { 7. Hydrant discharge is independent of pressure. }  
 { 8. Supply point may be anywhere in the system. }  
 { There may be more than one supply in the system. }  
 { 9. Only pipes actually flowing water are reported. }  
 { 10. B represents total flow in any particular pipe. }  
 { 11. Vf/s is the water velocity in feet per second. }  
 { 12. D is the actual internal diameter of the pipe. }  
 { 13. F refers to the fittings used. The list may be }  
 { up to ten characters. The following applies: }  
 { A letter without a preceeding number is singular. }  
 { A preceeding number is a multiple of the fitting. }  
 { A number alone represents its numeric value only. }  
 { 14. L represents the actual length of the pipe shown. }  
 { 15. Fitting value is the equivalent footage of pipe. }  
 { 16. Total is the sum of fitting value & pipe length. }  
 { 17. C-factor is the Hazen Williams Coefficient. }  
 { 18. Friction loss per foot based on H-W formula. }  
 { 19. Pe= pressure loss due to elevation differential. }  
 { 20. Pf= total friction loss (length x loss per foot) }  
 { 21. Pt= Total pressure at each node. (Pt+Pe+Pf) }

A=alarm valve, B=butterfly valve, C=cross, E=short turn ell, F=45° ell, G=gate valve, L=long turn ell, T=tee, V=swing check valve

## Sample Calculation Placard

## \* HYDRAULICALLY DESIGNED AUTOMATIC SPRINKLER SYSTEM INFORMATION \*

Job name: LINCOLN DISTRIBUTION CENTER

Location: 12500 EAST SLABSON AVE., SANTA FE SPRINGS, CA.

Contract No. J-1232 Drawing No: 1 OF 2 Date: 09-20-1989

This system is designed to discharge at a rate of .33 g.p.m.

per square foot of floor area over a maximum of 3900 square

feet when supplied at a rate of 1529.1 g.p.m.

at the base of riser with a pressure of 94.8 p.s.i.

The above information includes hose stream allowance of 0 g.p.m.

## Sprinkler System Analysis

LINCOLN, SANTA FE SPRINGS, BLDG. 2, SYST. 1

TOTAL FLOW AVAILABLE: Static Pressure 175.0 PSI  
 Residual Pressure 122.0 PSI  
 at Discharge of 1850 GPM

NODE NO.	ELEVATION FEET	SPRK COEF	PRESSURE PSI	DISCHARGE GPM
----- VERSION 2.1 -----				
1	21.0	8.10	16.7	33.1
2	21.0	8.10	16.9	33.3
3	21.0	8.10	17.5	33.9
4	21.0	8.10	18.8	35.2
5	21.0	8.10	21.2	37.3
6	21.0	8.10	24.8	40.3
7	21.0	8.10	30.2	44.5
8	21.0	8.10	37.9	49.8
9	21.0		50.0	
10	20.0		54.8	
11	21.0	8.10	16.7	33.1
12	21.0	8.10	16.9	33.3
13	21.0	8.10	17.5	33.9
14	21.0	8.10	18.8	35.2
15	21.0	8.10	21.2	37.3
16	21.0	8.10	24.8	40.4
17	21.0	8.10	30.2	44.5
18	21.0	8.10	37.9	49.9
19	21.0		50.0	
20	20.0		54.8	
21	21.0	8.10	16.8	33.2
22	21.0	8.10	16.9	33.3
23	21.0	8.10	17.6	34.0
24	21.0	8.10	18.9	35.2
25	21.0	8.10	21.2	37.3
26	21.0	8.10	24.9	40.4
27	21.0	8.10	30.3	44.6
28	21.0	8.10	38.0	49.9
29	21.0		50.1	
30	20.0		55.0	
31	21.0	8.10	16.9	33.3
32	21.0	8.10	17.1	33.5
33	21.0	8.10	17.7	34.1
34	21.0	8.10	19.0	35.3
35	21.0	8.10	21.4	37.5
36	21.0	8.10	25.1	40.6
37	21.0	8.10	30.5	44.7
38	21.0	8.10	38.2	50.1
39	21.0		50.5	
40	20.0		55.3	
41	21.0	8.10	25.1	40.6
42	21.0	8.10	28.2	43.0
43	21.0	8.10	32.9	46.5
44	21.0	8.10	40.0	51.2
45	21.0		51.4	
46	20.0		55.9	

## LINCOLN, SANTA FE SPRINGS, BLDG. 2, SYST. 1

NODE NO.	ELEVATION FEET	SPRK COEF	PRESSURE PSI	DISCHARGE GPM	
47	20.0		81.9		
48	5.0		91.0		
49	3.0		93.4		
50	0.0		94.8	100.0	Hydrant Flow
51	0.0		95.2		
52	0.0		96.4	400.0	Hydrant Flow
53	0.0		108.6		
54	0.0		109.8		
55	0.0		112.0		Supply Point
56	0.0		98.7		
57	21.0	8.10	23.4	39.2	
58	21.0	8.10	22.6	38.5	
59	21.0	8.10	22.3	38.3	



## LINCOLN, SANTA FE SPRINGS, BLDG. 2, SYST. 1

PIPE NO.	NO. NODE NO.	FLOW GPM	K-FACTOR FITTING TYPE DIAMETER	LENGTH FTG TOTAL	FRICTION LOSS PSI/FT	PRESSURE PSI	NOTES		
BARNARD VERSION 2.1									
1	1	q= 33.1	K= 8.10	10.0		Pt 16.7	Pt 16.7		
		Q= 33.1	F=	0.0	C= 100	Pe 0.0	Pv -0.0		
		Vf/s= 3.2	D= 2.067	10.0	0.0171	Pf 0.2	Pn 16.6		
2	2	q= 33.3	K= 8.10	10.0		Pt 16.9	Pt 16.9		
		Q= 66.4	F=	0.0	C= 100	Pe 0.0	Pv -0.3		
		Vf/s= 6.3	D= 2.067	10.0	0.0622	Pf 0.6	Pn 16.6		
3	3	q= 33.9	K= 8.10	10.0		Pt 17.5	Pt 17.5		
		Q= 100.3	F=	0.0	C= 100	Pe 0.0	Pv -0.6		
		Vf/s= 9.6	D= 2.067	10.0	0.1334	Pf 1.3	Pn 16.9		
4	4	q= 35.2	K= 8.10	10.0		Pt 18.8	Pt 18.8		
		Q= 135.4	F=	0.0	C= 100	Pe 0.0	Pv -1.1		
		Vf/s= 12.9	D= 2.067	10.0	0.2328	Pf 2.3	Pn 17.7		
5	5	q= 37.3	K= 8.10	10.0		Pt 21.2	Pt 21.2		
		Q= 172.7	F=	0.0	C= 100	Pe 0.0	Pv -1.8		
		Vf/s= 16.5	D= 2.067	10.0	0.3651	Pf 3.7	Pn 19.3		
6	6	q= 40.3	K= 8.10	10.0		Pt 24.8	Pt 24.8		
		Q= 213.0	F=	0.0	C= 100	Pe 0.0	Pv -2.8		
		Vf/s= 20.4	D= 2.067	10.0	0.5386	Pf 5.4	Pn 22.0		
7	7	q= 44.5	K= 8.10	10.0		Pt 30.2	Pt 30.2		
		Q= 257.5	F=	0.0	C= 100	Pe 0.0	Pv -4.1		
		Vf/s= 24.6	D= 2.067	10.0	0.7654	Pf 7.7	Pn 26.1		
8	8	q= 49.8	K= 8.10	4.0		Pt 37.9	Pt 37.9		
		Q= 307.4	F=T	7.4	C= 100	Pe 0.0	Pv -5.8		
		Vf/s= 29.4	D= 2.067	11.4	1.0621	Pf 12.1	Pn 32.0		
9	9	q= 0.0	K= 0.00	1.0		Pt 50.0	Pt 50.0		
		Q= 307.4	F=T	8.8	C= 100	Pe 0.4	Pv -2.9		
		Vf/s= 20.6	D= 2.469	9.8	0.4470	Pf 4.4	Pn 47.1		
10									
BARNARD VERSION 2.1									
10	11	q= 33.1	K= 8.10	10.0		Pt 16.7	Pt 16.7		
		Q= 33.1	F=	0.0	C= 100	Pe 0.0	Pv -0.0		
		Vf/s= 3.2	D= 2.067	10.0	0.0172	Pf 0.2	Pn 16.7		
11	12	q= 33.3	K= 8.10	10.0		Pt 16.9	Pt 16.9		
		Q= 66.4	F=	0.0	C= 100	Pe 0.0	Pv -0.3		
		Vf/s= 6.3	D= 2.067	10.0	0.0622	Pf 0.6	Pn 16.6		
12	13	q= 33.9	K= 8.10	10.0		Pt 17.5	Pt 17.5		
		Q= 100.3	F=	0.0	C= 100	Pe 0.0	Pv -0.6		
		Vf/s= 9.6	D= 2.067	10.0	0.1335	Pf 1.3	Pn 16.9		
13	14	q= 35.2	K= 8.10	10.0		Pt 18.8	Pt 18.8		
		Q= 135.5	F=	0.0	C= 100	Pe 0.0	Pv -1.1		
		Vf/s= 13.0	D= 2.067	10.0	0.2329	Pf 2.3	Pn 17.7		

## LINCOLN, SANTA FE SPRINGS, BLDG. 2, SYST. 1

PIPE NO.	NO. NODE NO.	FLOW GPM	K-FACTOR FITTING TYPE DIAMETER	LENGTH FTG TOTAL	FRICTION LOSS PSI/FT	PRESSURE PSI			NOTES
BARNARD						VERSION 2.1			
14	15	q= 37.3	K= 8.10	10.0		Pt	21.2	Pt	21.2
		Q= 172.8	F=	0.0	C= 100	Pe	0.0	Pv	-1.8
		Vf/s= 16.5	D= 2.067	10.0	0.3654	Pf	3.7	Pn	19.3
15	16	q= 40.4	K= 8.10	10.0		Pt	24.8	Pt	24.8
		Q= 213.1	F=	0.0	C= 100	Pe	0.0	Pv	-2.8
		Vf/s= 20.4	D= 2.067	10.0	0.5390	Pf	5.4	Pn	22.0
16	17	q= 44.5	K= 8.10	10.0		Pt	30.2	Pt	30.2
		Q= 257.7	F=	0.0	C= 100	Pe	0.0	Pv	-4.1
		Vf/s= 24.6	D= 2.067	10.0	0.7660	Pf	7.7	Pn	26.1
17	18	q= 49.9	K= 8.10	4.0		Pt	37.9	Pt	37.9
		Q= 307.5	F=T	7.4	C= 100	Pe	0.0	Pv	-5.8
		Vf/s= 29.4	D= 2.067	11.4	1.0629	Pf	12.1	Pn	32.1
18	19	q= 0.0	K= 0.00	1.0		Pt	50.0	Pt	50.0
		Q= 307.5	F=T	8.8	C= 100	Pe	0.4	Pv	-2.9
		Vf/s= 20.6	D= 2.469	9.8	0.4473	Pf	4.4	Pn	47.1
BARNARD						VERSION 2.1			
19	21	q= 33.2	K= 8.10	10.0		Pt	16.8	Pt	16.8
		Q= 33.2	F=	0.0	C= 100	Pe	0.0	Pv	-0.0
		Vf/s= 3.2	D= 2.067	10.0	0.0172	Pf	0.2	Pn	16.7
20	22	q= 33.3	K= 8.10	10.0		Pt	16.9	Pt	16.9
		Q= 66.5	F=	0.0	C= 100	Pe	0.0	Pv	-0.3
		Vf/s= 6.4	D= 2.067	10.0	0.0624	Pf	0.6	Pn	16.7
21	23	q= 34.0	K= 8.10	10.0		Pt	17.6	Pt	17.6
		Q= 100.5	F=	0.0	C= 100	Pe	0.0	Pv	-0.6
		Vf/s= 9.6	D= 2.067	10.0	0.1339	Pf	1.3	Pn	16.9
22	24	q= 35.2	K= 8.10	10.0		Pt	18.9	Pt	18.9
		Q= 135.7	F=	0.0	C= 100	Pe	0.0	Pv	-1.1
		Vf/s= 13.0	D= 2.067	10.0	0.2336	Pf	2.3	Pn	17.8
23	25	q= 37.3	K= 8.10	10.0		Pt	21.2	Pt	21.2
		Q= 173.0	F=	0.0	C= 100	Pe	0.0	Pv	-1.8
		Vf/s= 16.5	D= 2.067	10.0	0.3664	Pf	3.7	Pn	19.4
24	26	q= 40.4	K= 8.10	10.0		Pt	24.9	Pt	24.9
		Q= 213.5	F=	0.0	C= 100	Pe	0.0	Pv	-2.8
		Vf/s= 20.4	D= 2.067	10.0	0.5406	Pf	5.4	Pn	22.1
25	27	q= 44.6	K= 8.10	10.0		Pt	30.3	Pt	30.3
		Q= 258.1	F=	0.0	C= 100	Pe	0.0	Pv	-4.1
		Vf/s= 24.7	D= 2.067	10.0	0.7682	Pf	7.7	Pn	26.2
26	28	q= 49.9	K= 8.10	4.0		Pt	38.0	Pt	38.0
		Q= 308.0	F=T	7.4	C= 100	Pe	0.0	Pv	-5.8
		Vf/s= 29.4	D= 2.067	11.4	1.0659	Pf	12.2	Pn	32.2

## LINCOLN, SANTA FE SPRINGS, BLDG. 2, SYST. 1

PIPE NO.	NO.	FLOW GPM	K-FACTOR FITTING TYPE DIAMETER	LENGTH FTG TOTAL	FRICTION LOSS PSI/FT	PRESSURE PSI				NOTES
BARNARD						VERSION 2.1				
27	29	q= 0.0	K= 0.00	1.0		Pt	50.1	Pt	50.1	
		Q= 308.0	F=T	8.8	C= 100	Pe	0.4	Pv	-2.9	
		Vf/s= 20.6	D= 2.469	9.8	0.4486	Pf	4.4	Pn	47.3	
	30					Pt	55.0			
BARNARD						VERSION 2.1				
28	31	q= 33.3	K= 8.10	10.0		Pt	16.9	Pt	16.9	
		Q= 33.3	F=	0.0	C= 100	Pe	0.0	Pv	-0.0	
		Vf/s= 3.2	D= 2.067	10.0	0.0173	Pf	0.2	Pn	16.8	
29	32	q= 33.5	K= 8.10	10.0		Pt	17.1	Pt	17.1	
		Q= 66.7	F=	0.0	C= 100	Pe	0.0	Pv	-0.3	
		Vf/s= 6.4	D= 2.067	10.0	0.0628	Pf	0.6	Pn	16.8	
30	33	q= 34.1	K= 8.10	10.0		Pt	17.7	Pt	17.7	
		Q= 100.8	F=	0.0	C= 100	Pe	0.0	Pv	-0.6	
		Vf/s= 9.6	D= 2.067	10.0	0.1347	Pf	1.3	Pn	17.1	
31	34	q= 35.3	K= 8.10	10.0		Pt	19.0	Pt	19.0	
		Q= 136.1	F=	0.0	C= 100	Pe	0.0	Pv	-1.1	
		Vf/s= 13.0	D= 2.067	10.0	0.2351	Pf	2.4	Pn	17.9	
32	35	q= 37.5	K= 8.10	10.0		Pt	21.4	Pt	21.4	
		Q= 173.6	F=	0.0	C= 100	Pe	0.0	Pv	-1.9	
		Vf/s= 16.6	D= 2.067	10.0	0.3687	Pf	3.7	Pn	19.5	
33	36	q= 40.6	K= 8.10	10.0		Pt	25.1	Pt	25.1	
		Q= 214.2	F=	0.0	C= 100	Pe	0.0	Pv	-2.8	
		Vf/s= 20.5	D= 2.067	10.0	0.5439	Pf	5.4	Pn	22.3	
34	37	q= 44.7	K= 8.10	10.0		Pt	30.5	Pt	30.5	
		Q= 258.9	F=	0.0	C= 100	Pe	0.0	Pv	-4.1	
		Vf/s= 24.7	D= 2.067	10.0	0.7729	Pf	7.7	Pn	26.4	
35	38	q= 50.1	K= 8.10	4.0		Pt	38.2	Pt	38.2	
		Q= 309.0	F=T	7.4	C= 100	Pe	0.0	Pv	-5.9	
		Vf/s= 29.5	D= 2.067	11.4	1.0724	Pf	12.2	Pn	32.4	
36	39	q= 0.0	K= 0.00	1.0		Pt	50.5	Pt	50.5	
		Q= 309.0	F=T	8.8	C= 100	Pe	0.4	Pv	-2.9	
		Vf/s= 20.7	D= 2.469	9.8	0.4513	Pf	4.4	Pn	47.6	
	40					Pt	55.3			
BARNARD						VERSION 2.1				
37	41	q= 40.6	K= 8.10	10.0		Pt	25.1	Pt	25.1	
		Q= 156.5	F=	0.0	C= 100	Pe	0.0	Pv	-1.5	
		Vf/s= 15.0	D= 2.067	10.0	0.3044	Pf	3.0	Pn	23.6	
38	42	q= 43.0	K= 8.10	10.0		Pt	28.2	Pt	28.2	
		Q= 199.5	F=	0.0	C= 100	Pe	0.0	Pv	-2.4	
		Vf/s= 19.1	D= 2.067	10.0	0.4771	Pf	4.8	Pn	25.7	
39	43	q= 46.5	K= 8.10	10.0		Pt	32.9	Pt	32.9	
		Q= 246.0	F=	0.0	C= 100	Pe	0.0	Pv	-3.7	
		Vf/s= 23.5	D= 2.067	10.0	0.7032	Pf	7.0	Pn	29.2	

## LINCOLN, SANTA FE SPRINGS, BLDG. 2, SYST. 1

PIPE NO.	NO.	FLOW GPM	K-FACTOR FITTING TYPE DIAMETER	LENGTH FTG TOTAL	FRICTION LOSS PSI/FT	PRESSURE PSI			NOTES
BARNARD VERSION 2.1									
40	44	q= 51.2	K= 8.10	4.0		Pt	40.0	Pt	40.0
		Q= 297.2	F=T	7.4	C= 100	Pe	0.0	Pv	-5.4
		Vf/s= 28.4	D= 2.067	11.4	0.9981	Pf	11.4	Pn	34.5
41	45	q= 0.0	K= 0.00	1.0		Pt	51.4	Pt	51.4
		Q= 297.2	F=T	8.8	C= 100	Pe	0.4	Pv	-2.7
		Vf/s= 19.9	D= 2.469	9.8	0.4201	Pf	4.1	Pn	48.7
BARNARD VERSION 2.1									
42	10	q= 0.0	K= 0.00	10.0		Pt	54.8	Pt	54.8
		Q= 307.4	F=	0.0	C= 100	Pe	0.0	Pv	-0.0
		Vf/s= 3.1	D= 6.357	10.0	0.0045	Pf	0.0	Pn	54.7
43	20	q= 0.0	K= 0.00	10.0		Pt	54.8	Pt	54.8
		Q= 614.9	F=	0.0	C= 100	Pe	0.0	Pv	-0.3
		Vf/s= 6.2	D= 6.357	10.0	0.0161	Pf	0.2	Pn	54.6
44	30	q= 0.0	K= 0.00	10.0		Pt	55.0	Pt	55.0
		Q= 922.9	F=	0.0	C= 100	Pe	0.0	Pv	-0.6
		Vf/s= 9.3	D= 6.357	10.0	0.0342	Pf	0.3	Pn	54.4
45	40	q= 0.0	K= 0.00	10.0		Pt	55.3	Pt	55.3
		Q=1231.9	F=	0.0	C= 100	Pe	0.0	Pv	-1.0
		Vf/s= 12.4	D= 6.357	10.0	0.0584	Pf	0.6	Pn	54.3
46	46	q= 0.0	K= 0.00	255.0		Pt	55.9	Pt	55.9
		Q=1529.1	F=3LT	43.1	C= 100	Pe	0.0	Pv	-1.6
		Vf/s= 15.5	D= 6.357	298.1	0.0872	Pf	26.0	Pn	54.3
47	47	q= 0.0	K= 0.00	78.0		Pt	81.9	Pt	81.9
		Q=1529.1	F=2L	17.3	C= 100	Pe	6.5	Pv	-0.6
		Vf/s= 9.6	D= 8.071	95.3	0.0272	Pf	2.6	Pn	81.3
48	48	q= 0.0	K= 0.00	3.0		Pt	91.0	Pt	91.0
		Q=1529.1	F=15	15.0	C= 100	Pe	0.9	Pv	-1.6
		Vf/s= 15.5	D= 6.357	18.0	0.0872	Pf	1.6	Pn	89.4
49	49	q= 0.0	K= 0.00	3.0		Pt	93.4	Pt	93.4
		Q=1529.1	F=	0.0	C= 120	Pe	1.3	Pv	-0.6
		Vf/s= 9.6	D= 8.071	3.0	0.0195	Pf	0.0	Pn	92.8
50	50	q= 100.0	ADD HYD FLOW	10.0		Pt	94.8	Pt	94.8
		Q=1629.1	F=LG	22.6	C= 140	Pe	0.0	Pv	-0.6
		Vf/s= 9.2	D= 8.510	32.6	0.0127	Pf	0.4	Pn	94.2
51	51	q= 0.0	K= 0.00	20.0		Pt	95.2	Pt	95.2
		Q=1629.1	F=T	60.3	C= 150	Pe	0.0	Pv	-0.7
		Vf/s= 10.4	D= 7.980	80.3	0.0153	Pf	1.2	Pn	94.5
52	52	q= 400.0	ADD HYD FLOW	2360.0		Pt	96.4	Pt	96.4
		Q= 875.6	F=2T2F2G	158.8	C= 150	Pe	0.0	Pv	-0.2
		Vf/s= 5.6	D= 7.980	2518.8	0.0048	Pf	12.2	Pn	96.2

## LINCOLN, SANTA FE SPRINGS, BLDG. 2, SYST. 1

PIPE NO.	NO. NODE NO.	FLOW GPM	K-FACTOR FITTING TYPE DIAMETER	LENGTH FTG TOTAL	FRICTION LOSS PSI/FT	PRESSURE PSI	NOTES
BARNARD						VERSION 2.1	
53	53	q= 0.0 K= 0.00		120.0		Pt 108.6 Pt 108.6	
		G=2029.1 F=L		22.2	C= 150	Pe 0.0 Pv -0.5	
		Vf/s= 8.6 D= 9.790		142.2	0.0085	Pf 1.2 Pn 108.1	
54	54	q= 0.0 K= 0.00		10.0		Pt 109.8 Pt 109.8	
		G=2029.1 F=26V		51.2	C= 120	Pe 0.0 Pv -1.1	
		Vf/s= 13.0 D= 7.980		61.2	0.0347	Pf 2.1 Pn 108.7	
55	55	<<<<<<< Supply point >>>>>>>				Pt 112.0	
BARNARD						VERSION 2.1	
55	55	q= 400.0 ADD HYD FLOW		260.0		Pt 96.4 Pt 96.4	
		G=1153.5 F=L		18.1	C= 150	Pe 0.0 Pv -0.4	
		Vf/s= 7.4 D= 7.980		278.1	0.0081	Pf 2.2 Pn 96.1	
56	56	q= 0.0 K= 0.00		1070.0		Pt 98.7 Pt 98.7	
		G=1153.5 F=2TFL26		163.8	C= 150	Pe 0.0 Pv -0.4	
		Vf/s= 7.4 D= 7.980		1233.8	0.0081	Pf 10.0 Pn 98.3	
53	53					Pt 108.6	
BARNARD						VERSION 2.1	
57	57	q= 39.2 K= 8.10		10.0		Pt 23.4 Pt 23.4	
		G= 115.9 F=		0.0	C= 100	Pe 0.0 Pv -0.8	
		Vf/s= 11.1 D= 2.067		10.0	0.1746	Pf 1.7 Pn 22.6	
41	41					Pt 25.1	
BARNARD						VERSION 2.1	
58	58	q= 38.5 K= 8.10		10.0		Pt 22.6 Pt 22.6	
		G= 76.8 F=		0.0	C= 100	Pe 0.0 Pv -0.4	
		Vf/s= 7.3 D= 2.067		10.0	0.0814	Pf 0.8 Pn 22.2	
57	57					Pt 23.4	
BARNARD						VERSION 2.1	
59	59	q= 38.3 K= 8.10		10.0		Pt 22.3 Pt 22.3	
		G= 38.3 F=		0.0	C= 100	Pe 0.0 Pv -0.0	
		Vf/s= 3.7 D= 2.067		10.0	0.0224	Pf 0.2 Pn 22.3	
58	58					Pt 22.6	



City of Santa Fe Springs • Certified Unified Program Agency  
**REGULATED SUBSTANCE REGISTRATION**  
 (OES 2735.6)

THIS FORM IS TO BE COMPLETED FOR A STATIONARY SOURCE THAT HANDLES A REGULATED SUBSTANCE (RS) IN A PROCESS AT OR ABOVE THE THRESHOLD QUANTITY. REGULATED SUBSTANCES (WHICH INCLUDE EXTREMELY HAZARDOUS SUBSTANCES IN CALIFORNIA) MUST BE REGISTERED FOR THE PURPOSE OF COMPLYING WITH THE CALIFORNIA ACCIDENTAL RELEASE PREVENTION PROGRAM (CARP). THE OWNER OR OPERATOR SHALL COMPLETE A SINGLE REGISTRATION FOR EACH REGULATED SUBSTANCE PER PROCESS. A LIST OF REGULATED SUBSTANCES IS INCLUDED IN THIS PACKAGE.

→ Legacy Partners Commercial, Inc.

BUSINESS NAME: Lincoln Slaven Distribution Center c/o		3 FACILITY ID# 75-2124104		1
U.S. EPA ID# N/A	2 NUMBER OF FT EMPLOYEES: N/A	350	PROGRAM LEVEL: 01 <input checked="" type="checkbox"/> 02 <input checked="" type="checkbox"/> 03	351
NAME OF CORPORATE PARENT COMPANY:		352	DUN & BRADSTREET:	353
PERSON RESPONSIBLE FOR RMP (First Name, Last Name) Ted Kohlenberger / Kohlenberger		354	TITLE: Associates / Project Engineer	355
LATITUDE:	356	LONGITUDE:	357	PROCESS SIC:
IS FACILITY SUBJECT TO 29CFR 1910.119 TCCR 8 SEC 5189 (PSM)? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		359	DOES THE PROCESS REQUIRE A CAA TITLE V OPERATING PERMIT? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	360
IS SUBSTANCE LISTED IN 40 CFR 355 APPENDIX A (EHS): YES		361	LAST SAFETY INSP. AGENCY NONE DATE —	362

PROCESS DESCRIPTION: (RS) is utilized in a closed loop refrigeration system, which provides cooling to the cold storage/refrigerated warehouse. No discharge or hazardous waste is emitted or generated, by design.

PRINCIPAL EQUIPMENT Industrial refrigeration system  
 Consists Primarily of (2) refrigerant compressors, (2) evaporative condensers, various pressure vessels and piping / blower coils located inside facility.

**CERTIFICATION**

I, the owner or operator of the aforementioned business, hereby certify that the registration information provided above is true, accurate, and complete to the best of my knowledge, based upon reasonable inquiry. I am fully aware that this certification, executed on the date indicated below, is made under penalty of perjury under the laws of the State of California.

OWNER/OPERATOR NAME Legacy Partners Commercial, Inc. as agent and manager for Lincoln Slaven Distribution Center	300	OWNER/OPERATOR TITLE Terry Thompson, Vice President	301
OWNER/OPERATOR SIGNATURE <i>[Signature]</i>		DATE EXECUTED 12/29/95	302